

## TRANSCONNECTOR FOR COUPLING SPINAL RODS

### Cross-Reference to Related Application

*now United States Patent No. 6,736,817 B1, "*

[001] The present application is a continuation of U.S. Patent Application No. 09/927,350, filed August 13, 2001, which is a continuation of U.S. Patent Application No. 09/466,725, filed December 17, 1999, now United States Patent No. 6,283,967 B1, the entire  
5 content of which are expressly incorporated herein by reference thereto.

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### Field of the Invention

[002] The present invention relates to a device for spinal fixation, and in particular to a transconnector for coupling spinal rods, plates, or other elongate members.

### Background of the Invention

10 [003] It is often necessary to surgically treat spinal disorders such as scoliosis. Numerous systems for use in spinal correction and fixation have been disclosed. These systems usually include a pair of elongate members, typically either rods or plates, placed along the vertebral column. For the sake of simplicity, the term "rod" is used throughout to refer to any elongate member. Each rod is attached to the spine with various attachment  
15 devices. These attachment devices may include, but are not limited to, pedicle screws, plates, transverse process hooks, sublaminar hooks, pedicle hooks, and other similar devices.

[004] It is also well known that the strength and stability of the dual rod assembly can be increased by coupling the two rods with a cross-brace or transconnector which extends substantially horizontal to the longitudinal axes of the rods across the spine. The simplest  
20 situation in which a transconnector could be used occurs when the two rods are geometrically aligned. Specifically, the two rods are parallel to each other, *i.e.* there is no rod convergence or divergence in the medial-lateral direction; the two rods have the same orientation with respect to the coronal plane (viewed in the anterior-posterior direction), *i.e.* the rods are coplanar from a lateral view; and the two rods are located a uniform distance from each other.

25 [005] Due to a wide variety of factors, the two rods are rarely three dimensionally geometrically aligned in clinical situations. There are several ways to address the variations of geometrical alignment. First, one or both of the rods can be bent to accommodate the